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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,415	04/12/2001	Robert J. Kamper	AUS920010080US1	1589
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IBM CORP (YA)			BORLINGHAUS, JASON M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/833,415	Applicant(s) KAMPER ET AL.	
	Examiner Jason M. Borlinghaus	Art Unit 3693	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 10-28, 31-42 and 45-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-28, 31-42 and 45-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 – 7, 10 - 13, 16 – 28, 31 – 34, 37 – 42 and 47 – 48, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bodie (Bodie, Zvi; Kane, Alex; Marcus, Alan J. *Investments*. 3rd Edition. McGraw-Hill Companies. 1996) in view of Newsbytes ('Audible Objects' Have Virtual Reality Apps. *Newsbytes*. September 25, 1992. p.1) and Sander (Sander, Jennifer Basye & Sander, Peter J. *The Complete Idiot's Guide To Day Trading Like A Pro*. Alpha Books. New York, NY. 1999. pp. 34 & 104).

Regarding Claim 1, Bodie discloses a method comprising the steps of:

- receiving a current performance indication (price) of the investment vehicle (asset) within the plurality of investment vehicles (plurality of assets within a portfolio). (see p. 142); and

- wherein the current performance indication (price) of the investment vehicle (security) is processed by analyzing and evaluating performance (price) of the investment vehicle (security) based on criteria (specified price) for at least one of buying the investment vehicle (limit-buy/stop-buy orders) or selling the investment vehicle (limit-sell/stop-loss orders). (see p. 88 – 89).

Bodie does not teach the underlined limitations - a method comprising the steps of:

- matching the current performance indication of the investment vehicle with a predetermined audible signature, wherein the current performance of the investment is matched to a predetermined audible signature by analyzing and evaluating performance of the investment vehicle based on criteria for at least one of buying the investment vehicle or selling the investment vehicle; and
- transmitting the predetermined audible signature based on results of the matching.

Newsbytes discloses a method comprising the steps of:

- matching performance data (market data) with a predetermined audible signature (synthesized sound). (see p. 1); and
- transmitting (broadcasting) the predetermined audible signature (synthesized sound) based on results of the matching (data/sound parameters). (see p. 1).

Sander discloses a method comprising the steps of:

- matching the current (real-time) performance indication (price) of the investment vehicle (security) with a predetermined audible signature (bells and whistles/alarms and alerts), wherein the current performance of the investment (price) is matched to a predetermined audible signature (bells and whistles/alarms and alerts) by analyzing and evaluating performance of the investment vehicle based on criteria (price or volume levels) for the investment vehicle (security). (see p. 34 and 104).

Bodie does not teach that the method is automatic. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have automated the method, since it has been held that broadly providing a mechanical or automatic means to replace manual activity that accomplishes the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie by incorporating an audible signature, as disclosed by Newsbytes and Sander, to “help users of information systems comprehend more far more data than they could take in visually.” (see Newsbyte, p. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie, Newsbytes and Sander by incorporating an audio signature controlled by “data parameters”, as disclosed by Newsbytes and Sander, to be controlled by the analysis and evaluation of performance of the investment vehicle based on criteria when investment vehicle performance matched

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said criteria, as disclosed by Sanders, providing audio notification when investment vehicle performance reached said criteria.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie, Newsbytes and Sander by incorporating the basis for said criteria to be at least one of buying the investment vehicle or selling the investment vehicle, as disclosed by Bodie, allowing the user to set criteria based upon said intentions, buying or selling investment vehicle, each of which may have separate notification criteria.

Regarding Claim 2, Bodie discloses a method wherein:

- the investment vehicle (portfolio) includes at least one of an equity (securities – see pp. 56 - 59), a bond (debt securities – pp. 46 – 56), a certificate of deposit (money market securities – p. 43), and an annuity (pp. 898 – 900).

Regarding Claim 3, Bodie discloses a method wherein:

- the current performance indication (price) is a value (price) of the investment vehicle (security). (see pp. 57 - 58).

Regarding Claim 4, Bodie does not teach the underlined limitations - a method wherein:

- the value of the investment vehicle is one of an increase in value of the investment vehicle, decrease in value the investment vehicle and no change in value of the investment vehicle.

While neither Bodie, Newsbytes not Sander explicitly state the possible directions for movement in the value of the investment vehicle, it is old and well known in the art of financial markets and financial management that the value of an investment vehicle can have only three possible movements – upward, downward or no change. It would have been obvious to one of ordinary skill at the time the invention was made to have modified Bodie, Newsbytes and Hauk to account for the three possible movements in value of the investment vehicle, the only three possible movements available for said investment vehicle.

Regarding Claim 5, Bodie discloses a method wherein:

- the value (price) of the investment vehicle (bond/security) are expressed in one fraction format (see figure 2.10, p. 58) and a decimal format (see figure 2.2, p. 41) establishing value and price.

Regarding Claim 6, Bodie does not teach the underlined limitations - a method wherein:

- the investment vehicle within the plurality of investment vehicles is one of a publicly traded investment vehicle and a privately held investment vehicle in at least one of a major stock exchange and an over a counter stock exchange.

The concept of a portfolio consisting of a variety of investment vehicles is old and well known in the art of financial management. Furthermore, the concept of a publicly traded investment vehicle (public offering – see Bodie, p. 79), a privately held investment vehicle (private placement – see Bodie, p. 79), a vehicle from a major stock

exchange (see Bodie, p. 81 – 84) and a vehicle from an over-the-counter stock exchange (see Bodie, p. 84 – 85) are also old and well known in the art of financial management. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie, Newsbytes and Sander to allow for any type and/or combination of existing investment vehicles that the inventor desired. In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

Regarding Claim 7, Bodie does not teach the underlined limitations - a method wherein:

- receiving a current performance indication of the investment vehicle within the plurality of investment vehicles is received by at least one of a buyer the investment vehicle and a seller of the investment vehicle.

The concept of a current performance indication of the investment being received by at least one buyer and seller of the investment vehicle is old and well known in the art of financial management and financial reporting, as evidenced by Bodie which states that The Wall Street Journal is a source of current performance indicators (prices) which is available to the public. (see Bodie, figure 2.10, p. 58). And as evidenced by Sander which states that “markets provide real-time access to quote and activity data”. (see p. 34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie, Newsbytes and Sander to incorporate the reception of a current performance indication of the investment vehicle by a buyer and a seller of the investment vehicle, as disclosed by Bodie and Sander, as such current

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performance indicators are traditionally and normally available to the public, which encompasses both buyers and sellers of the investment vehicle.

Regarding Claim 10, Bodie discloses a method wherein:

- criteria for at least one of buying the investment vehicle or selling the investment vehicle includes a target (specified) price of the investment vehicle. (see p. 88).

Regarding Claim 11, Bodie discloses a method wherein:

- analyzing performance of the investment vehicle includes at least one of price to earnings ratio of the investment vehicle (see p. 536 - 538), dividend paid for a share of the investment vehicle (listed on stock market listings – see figure 2.10, p. 58) and a rate of return on investment (expected rate of return – see p. 150) of the investment vehicle.

Regarding Claim 12, Bodie does not teach the underlined limitations - a method wherein:

- the predetermined audible signature is stored in a memory.

Newsbytes discloses a method wherein:

- a computer system (Macintosh IIx) through which a predetermined audible signature is used. (see p. 1).

Utilizing a memory for storage of data is old and well known in the art of computer systems and information systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie, Newsbytes and Sander by incorporating a predetermined audible signature is stored in

a memory, as is old and well known, allowing for computerized automation of the method.

Regarding Claim 13, Bodie does not teach the underlined limitations - a method wherein:

- transmitting the predetermined audible signature is transmitted from at least one of a cellular telephone, a personal digital assistant, a personal computer, a notebook computer and a paging device.

Newsbytes discloses a method:

- whererin transmitting (broadcasting) the predetermined audible signature is transmitted (broadcast) from a personal computer (Macintosh IIfx). (see p. 1).

Transmission of sound via a cellular telephone, a personal digital assistant, a notebook computer and a paging device are old and well known in the art of information systems and communication systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie, Newsbytes and Sander to incorporate the ability to transmit the predetermined audible signature through any existing transmission technology that the inventor desired, such as through such old and well known technologies such as a cellular telephone, a personal digital assistant, a notebook computer and a paging device. In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

Regarding Claims 16 – 17, Bodie does not teach the underlined limitations - a method wherein:

- the audible signature changes pitch as the current performance of the investment vehicle changes; and
- the change in pitch is a higher pitch as the current performance increases and a lower pitch as the current performance decreases.

Newsbytes discloses a method wherein:

- the audible signature (synthesized sound) changes pitch as the performance (price) of the investment vehicle (stocks) changes. (see p. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie, Newsbytes and Sander to allow for any correlation between the pitch of the synthesized sound and current performance that the inventor desired, such as the correlation disclosed by Newsbyte. In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

Regarding Claim 18, further system claim would have been obvious from method claim rejected above, Claim 1, and is therefore rejected using the same art and rationale.

Furthermore, claimed components are old and well known in the art of information systems, and automation of said manual process would necessitate the incorporation of such components and elements, such as an input interface, a system memory, a processor, and an output interface, in order to achieve such automation. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to have utilized existing and well-known technology at the time that the invention was made to automate the above disclosed method and/or system.

Regarding Claims 19 – 21, Bodie does not teach underlined limitations - a system wherein:

- the processing unit includes a plurality of processors;
- a first processing unit within the plurality of processors is located at a server machine; and
- a second processing unit within the plurality of processors is located at a client machine.

Use of multiple processors, with one processor located at a server machine and a second processor located at a client machine is old and well known in the art of information systems and computer systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie, Newsbytes and Sander to allow for any server/client architecture that the inventor desired. In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

Regarding Claims 22 – 28, 31 – 34 and 37 – 38, further system claims would have been obvious from method claims rejected above, Claims 1 – 3 and 16 - 17, and are therefore rejected using the same art and rationale.

Regarding Claims 39 - 40, further system claims would have been obvious from method claim rejected above, Claim 1, and is therefore rejected using the same art and rationale.

Regarding Claims 41 – 42 and 47 - 48, further product claims would have been obvious from method claims rejected above, Claims 1, 3 and 16 – 17, respectively, and are therefore rejected using the same art and rationale.

Claims 14 – 15, 34 – 36 and 45 – 46, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bodie, Newsbytes and Sander, as applied to Claims 1, 22 and 41 above, and further in view of Masunaga (Masunaga, Yoshifumi; Katayama, Takuya; Tsukamoto, Michiharu. *Worldwide Computing And Its Applications – WWCA '98*. Springer-Verlag. Berlin, Germany. 1998. pp. 20 – 21).

Regarding Claims 14 - 15, Bodie does not teach the underlined limitations - a method wherein:

- the audible signature is a musical instrument digital interface (MIDI) standard; and
- the MIDI standard is a plurality of MIDI standards.

Formatting of a sound in a MIDI standard and/or a plurality of MIDI standards is old and well known in the art of information systems and multimedia systems, as evidenced by Masunaga which states that sound files are formatted in a wide variety of different formats such as “wav, au, aiff, and multiple MIDI formats”. (see p. 20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bodie, Newsbytes and Sander by incorporating the use of MIDI standards, as disclosed by Masunaga, allowing for the use of standard existing formats for the audible signature file.

Regarding Claims 35 - 36, further system claims would have been obvious from method claims rejected above, Claims 13 - 15, and are therefore rejected using the same art and rationale.

Regarding Claims 45 - 46, further product claims would have been obvious from method claims rejected above, Claims 13 - 15, respectively, and are therefore rejected using the same art and rationale.

Response to Arguments

Applicant's arguments filed 6/6/2006 have been fully considered but they are not persuasive.

In response to applicant's argument that examiner has failed to establish a prima facie case of obviousness, examiner asserts that a prima facie case of obviousness has been established. Applicant is reminded that "[t]o establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." *See MPEP § 2143*.

In response to applicant's arguments concerning the rejection of Claims 1, 18, 22, 39 and 41 under § 103, specifically that the prior art does not teach nor suggest the limitation "matching the current performance indication of the investment vehicle to a predetermined audible signature and transmitting the predetermined audible signature based on results of the matching," (see applicant's arguments, p. 11) examiner asserts that prior art references, in combination, do teach such limitation.

Examiner reminds applicant that "one cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references." *In re Keller, Terry, and Davies*, 208 USPQ 871, 882 (CCPA 1981). In the instant case, applicant refutes each prior art reference individually, rather than viewing them in combination, in light of the totality of their combined teachings.

Bodie, a general investment and finance textbook, discloses standard and conventional criteria by which to analyze and evaluate the performance of an investment vehicle. Newsbyte, a periodical article, discloses the matching of financial data corresponding to an investment vehicle to synthesized sound parameters. Examiner asserts that it would have been obvious to have modified the analysis and evaluation techniques of Bodie by incorporating sound production capabilities, as disclosed by Newsbyte, allowing for communication of financial data, traditionally communicated visually, through auditory means.

Applicant attempts to distinguish Newsbyte on the basis that Newsbyte "teaches assigning a sound to a stock that has a starting value and altering that sound for each data point, relative to the previous data point" while Applicant relies on a single data point in isolation. (see applicant's argument, p. 11). Examiner asserts that Newsbyte produces a sound based upon each data point analyzed by the system, as the "data controls the parameters of the synthesized sound". (see Newsbyte, p. 1). While Newsbyte discloses that a demonstration of the system handling "four-and-a-half years of market ups and downs" created a continuous symphony of sound, the fact remains that a sound was created based upon each data point.

Applicant also asserts that Newsbyte does not teach “matching.” (see applicant’s argument, p. 12). Examiner asserts that as the financial data values control the parameters of the synthesized sound characteristics, there is a comparison or matching between the financial data values and the programmed sound characteristics to allow the financial data to control the parameters of the synthesized sound.

Furthermore, Applicant argues that Newsbyte teaches “the same sound is used to indicate every performance indication generated..., only the characteristics of the sound change as performance of the instrument varies.” (see applicant’s argument, p. 12). Examiner asserts that if the characteristics of a sound changes, such as pitch, brightness or speed, then each sound with different sound characteristics is by definition a different sound. Applicant gives examples of the various sounds created by his proposed system such as “a bell...[or] the song ‘Happy Days are Here Again.’” However, claim language merely states “a predetermined audible signature” which is sufficiently broad to encompass audible sounds based upon predetermined sound characteristics as disclosed by Newsbyte.

Applicant also asserts that Newsbyte “does not teach transmitting a sound” (see applicant’s argument, p. 12). Examiner asserts that, as Newsbyte is a computer system producing and broadcasting a sound, as such sound is being heard by people at “one demonstration,” then such sound is being transmitted, even if only transmitted from the computer system to a person’s ear.

Applicant also attempts to distinguish Sander by arguing that “bells and whistles...is a colloquial term”. Examiner understands that “bells and whistles” is a

colloquial term. Examiner was utilizing Sander to demonstrate that monitoring current, rather than historical, performance indicators of investment vehicles is old and well known in the art, and that the setting of “alarms and alerts” to monitor such performance is old and well known in the art. Furthermore, examiner asserts that “alarms and alerts,” as disclosed by Sander, in a computerized system does encompass auditory “alarms and alerts” and is not merely limited to visual “alarms and alerts,” especially when viewed in conjunction with Newsbyte which discloses the communication of traditionally visual data through auditory means.

In response to applicant’s arguments concerning the §103 rejection of Claims 14 – 15, 35 – 36 and 45 – 46, as applicant’s arguments concerning Claims 14 – 15, 35 – 36 and 45 – 46 are similar to applicant’s arguments concerning Claim Claims 1, 18, 22, 39 and 41, examiner refutes applicant’s arguments using the same art and rationale as applied against applicant’s arguments concerning Claim Claims 1, 18, 22, 39 and 41.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Borlinghaus whose telephone number is (571) 272-6924. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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